

Problem 3.16: Transfer Functions

In the following circuit (Figure 3.63), the voltage source equals

$$v_{in}(t) = 10\sin\left(\frac{t}{2}\right)$$

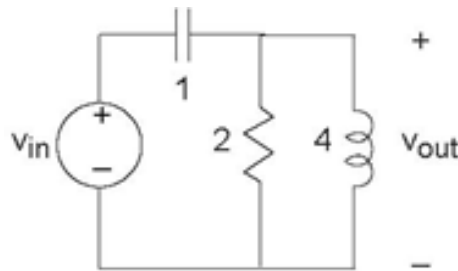


Figure 3.63 Transfer Functions

1. Find the transfer function between the source and the indicated output voltage.
2. For the given source, find the output voltage.

Problem 3.17: A Simple Circuit

You are given this simple circuit (Figure 3.64).

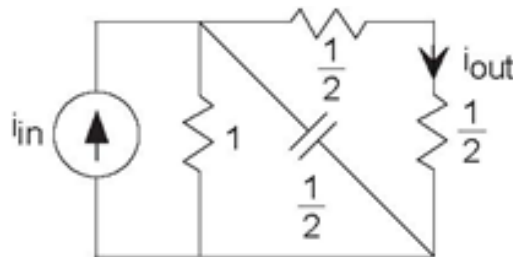


Figure 3.64 A Simple Circuit

1. What is the transfer function between the source and the indicated output current?
2. If the output current is measured to be $\cos(2t)$, what was the source?